

National Aeronautics and
Space Administration
John F. Kennedy Space Center
Kennedy Space Center, FL 32899



Reply to Attn of:

February 5, 2007

TA-C3/2054A

TO: Delaware North Corporation, KSC/Director of
Operational Services

FROM: TA-C3/Lead, Environmental Program Branch, Permitting and
Compliance

SUBJECT: DNC Hazardous and Controlled Waste Management Inspection

The Environmental Program Branch (EPB) conducted an inspection of DNC hazardous and controlled waste management on January 9 and 10, 2007. The inspection was conducted in accordance with Title 40 Code of Federal Regulation (CFR) Parts 260-270 and Kennedy NASA Procedure Requirement (KNPR) 8500.1.

The EPB inspection included reviewing waste management operations at the 90 day hazardous waste storage site, located at M6-506, satellite accumulation areas (SAAs) at the Landscape Building (M6-504), the Exhibits/Facility Maintenance Shop (M6-504), and the Bus Maintenance Facility Shop (M6-455). In addition, DNC has established one temporary site west of M6-0553 dedicated to Universal Waste Management. Also, included were: a review of weekly inspection records required for the 90 day site; job descriptions of personnel required to manage hazardous and universal waste; and training of personnel to meet the requirements of 40 CFR 265.16.

It should be noted that several new facilities have been constructed which are managed by DNC, therefore, the inspection included a walkdown of the facilities and their operations. As a result concerns were identified with personnel safety, material handling and storage, solid waste management from construction operations, impacts to wetland areas, and impact to a NASA Remediation Site. These will be addressed separately in the comment section.

DNC continues to be pro-active in several areas of waste minimization which include process substitution and elimination. They have worked to improve waste management

with SGS/CHS Waste Management for waste disposal options, for their construction contractors with using the KSC Landfill, Brevard County Landfill, and/or off-site disposal of other waste such as the removal and replacement of Bus Wash aggregate through coordinated through SGS waste management. DNC personnel were receptive to suggestions offered by the EPB representative for improving personnel awareness associated with waste management.

At the Universal waste site a compliance concern was identified with container labeling. The accumulation start date (ASD) on the accumulation container of mercury contaminated lamps (Waste Code TD 0004) was unclear. DNC personnel were aware of the correct ASD and addressed this real-time by re-labeling the container to clearly identify the ASD.

There were no compliance concerns identified at the M6-504 SAA for the Landscape Operations. It was observed that DNC had implemented the use of a step-can for the accumulation of waste aerosol cans in the Exhibits/Facility Maintenance Shop (M6-504). However, it was identified that DNC had no internal waste management policy for aerosol can management to indicate how personnel are to manage aerosol cans and what to do with the waste when the accumulation container is full. Waste was being properly managed at the Bus Maintenance Facility (M6-455). However, during the inspection it was identified that writing on labels of controlled waste accumulation containers had become smeared and illegible. Personnel immediately corrected the identified labeling concern. At the 90 day site (M6-506) containers were appropriately labeled and required weekly inspection records for the past year were found to be in order.

Construction operations associated with the new Experience exhibit were reviewed and the site was easily identified and well maintained. Paint waste was being accumulated in the area and therefore DNC personnel were cautioned that sub-contractor personnel needed appropriate waste management training if they were to do any type of waste management in the DNC 90 day site. Sub-contractor paint and product storage was neat and well organized.

The Astronaut Hall Of Fame (AHOF) maintenance shop supporting facility operations was included in the inspection. The AHOF is in the final stages of becoming NASA property and will be turned over to DNC for management. A review of shop operations identified a concern associated with universal waste management. It is commendable that DNC is assisting with the management of lamps generated at the AHOF. However, no internal documentation was available indicating how the waste is to be managed at the AHOF and under what conditions it is brought to the DNC universal waste site at the Visitor Center for pick up by SGS/CHS Waste Management for recycling. Additional concerns were identified, but will be in the comments section.

Waste management operations at the Saturn V were also reviewed. The predominant waste stream for this area is Universal Waste lamps. At the time of the inspection it was difficult to determine if there were any used lamps that were being generated. Therefore, it was suggested that in various locations where lamps are stored in bulk quantities, specific areas be identified as used lamp staging areas and that the types of lamps being accumulated at the locations be identified. Additional safety concerns were identified and will be noted in the comments section.

The DNC HR representative was not available at the time of the inspection, but did provide the DNC environmental representative with information associated with job descriptions and training of personnel associated with the management of hazardous waste. At random the records of one supervisor and four workers were selected for review. The supervisor and one of the workers had the appropriate job description indicating duties associated with hazardous waste management and appropriate hazardous waste training to comply with requirements of 40 CFR 265.16(d)(2). The three other workers did have written job descriptions indicating his hazardous waste management duties. However, their training records were found to be incomplete and did not demonstrate personnel had the appropriate training. Therefore, personnel were found to be in violation of 40 CFR 265.16(d)(2).

Comments:

AHOF: Upon arrival feral cats and two raccoons were observed just outside the shop area. When questioned about providing food to the animals shop personnel admitted that they feed the "dropped off cats and that the raccoons also come in now and then for food placed outside the shop. AHOF and DNC management were advised of the KSC policy regarding feral cats and that assistance was available through coordination with the feral cat program. Storage of pressurized gas cylinders (propane) were found in the flammable storage cabinet; accumulation/management of flammables, corrosives, and silver solder used in the electrical equipment repair shop needs to be reviewed for proper management; and serviceable/unsecured pressurized fire extinguisher storage needs to be evaluated. There was also a flammable storage cabinet containing gasoline and a gas cylinder storage adjacent to the roadway on the east side of the AHOF Shop. Neither of the two was secured/locked to prevent damage or theft.

Saturn V: Possible safety concern was identified in the floor polisher storage area located under/below the addition e stadium seating area in the Firing Room Theater. Several 110 volt battery chargers were observed to be in use in the area and had been staged on wooden pallets. There appeared to be no eyewash in the area for personnel even though it was a battery charging area. In addition, it was suggested DNC should evaluate the storage of chemicals in an occupied office area immediately adjacent to the kitchen food preparation area.

During the inspection it was observed that Eco Lab Degreaser a corrosive with a Ph of 13 to 14 was being stored with other chemicals. It was suggested that the use of this product be evaluated because the waste from this product could be hazardous.

New Food Service Warehouse

Inspection of this area observed possible concerns with chemical storage. It was suggested that DNC should evaluate the storage of chemicals. Eco Lab Degreaser, a corrosive with a Ph of 13 to 14 was being stored with other chemicals. It was suggested that the use of this product be evaluated because the waste from this product could be hazardous. In addition, there was no eyewash in the immediate area for personnel. Also it was identified that personnel may be required to occasionally spend extended time in the freezer area. It was suggested that the food warehouse manager consult with DNC safety to ensure personnel have appropriate PPE and training for working in the freezer area.

Gas Cylinder Storage Area

This area is located across from the Facilities Maintenance Shop. Several K-bottles were observed to be unsecured (free-standing) with caps missing. Other types of gas cylinders were also stored in the area. It was suggested that storage practices be evaluated.

Please Note: EPB contacted NASA Safety and SGS Fire Services informing them of the concerns that have been identified here in the comments section, and the locations within the various facilities.

West Construction Storage Area

This area was identified as an area of special concern during the inspection. Initially there were two areas of concern identified during the first day of the inspection. One was the stock piling of broken concrete. The second was what appeared to be possible impact to wetlands. DNC Management indicated the area was being used as a lay down area for construction that was being done at night after the Visitor Center was closed to the public. Stock piling of concrete was done at night and then taken to the KSC land fill the following day. The EPB NEPA engineer was informed of the concern the following day and upon visiting the site confirmed actions by DNC or their sub-contractors had impacted wetlands. The concern was shared with EPB Remediation engineers who identified that soil sampling was conducted in the area and had identified the presence of contamination in 2006. During the inspection outbriefing the following week the NASA NEPA and Remediation engineers briefed DNC Management of the impact to the respective areas and committed to working with DNC to correct the identified concerns.

No other compliance concerns were identified during the inspection. However, the following best management practices were discussed with the Environmental Manager and POC's as enhancements to the current waste management process:

(1) The use of latching lids as an enhancement to provide easy access to frequently used waste accumulation containers has been a big improvement and could be expanded even further especially at the Bus Maintenance Facility. (2) The inspection identified a concern with chemical storage in the exhibits electrical repair area. Chemical products were found to be stored in a refrigerator with food products/lunches of employees. This was corrected by the second day of the inspection and a small flammable storage cabinet was installed in the area for storage of chemicals when they were not in use.

The review of universal waste management at the Saturn V was found to be greatly improved from last year. There was also a noted improvement in job descriptions for personnel that generate and manage hazardous waste. The EPB commends the DNC staff for continued diligent efforts in meeting the criteria for hazardous and universal waste management compliance.

It is requested that corrective action implemented to address the identified compliance concerns related to training of personnel associated with the management of hazardous waste, and that it be submitted to this office by February 28, 2007. If you have any questions or require additional information, please contact Doug Younger at 867-4556.

Original Signed By

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